

State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd. Twinsburg, Ohio 44087

TELE: (330) 963-1200 **FAX:** (330) 487-0769 www.epa.state.oh.us

Ted Strickland, Governor Lee Fisher, Lieutenant Governor Chris Korleski, Director

December 21, 2009

RE: HERITAGE - WTI, INC. (WTI)

FACILITY ID 0215020233 FACILITY INSPECTION

John Peterka, President Heritage – WTI, Inc. (WTI) 1250 St. George Street East Liverpool, OH 43920

Dear Mr. Peterka:

On May 6, 2009, I met with Mr. Vince Waggle at WTI to review the requirements contained in your air permits, and to discuss overall compliance with applicable air rules and regulations. We also walked through portions of the facility to view operations. Also present during this visit were Ms. Patricia Natali and Ms. Michelle Tarka, both of Ohio EPA, Division of Hazardous Waste Management. Other WTI staff interviewed that day included Ms. Carrie Beringer and Mr. Kevin Lloyd.

This letter shall summarize the findings of the facility visit and topics of discussion.

May 6, 2009, facility walk-through:

Nothing unusual was observed during the May 6, 2009, facility walk-through. No visible emissions were observed from F001 (paved and unpaved roadways and parking areas), F002 (Loose solid waste receiving & handling operations), F003 (Slag and Fly Ash Transfer System), and F004 (Pneumatic lime and activated charcoal handling system). The overhead doors of F002 were closed, as required when materials are not being added to the pits. The Operating Parameter Limits (OPLs) were reviewed in the control room and found to be satisfactory.

Topics of Discussion on May 6, 2009, and other findings:

A. Air Permits for Heritage-WTI (WTI):

Title V Permit

The Title V permit was renewed on December 22, 2008, having an effective date of January 12, 2009 and an expiration date of January 12, 2014.

Permit-to-Install(PTI) modification #02-18743

This PTI was issued on March 22, 2007. An administrative modification to the PTI was issued on October 9, 2007. The administrative modification included adding missing rule citations to the cover letter, change in contact name, correction to an equation for F002, correction to a variable in an equation for F004, and a small change to the operations description for P001. PTI #02-18743 was needed because some of the original PTI requirements contained in #17-104 conflicted with the newer requirements in the Hazardous Waste Combustor MACT, i.e., 40 CFR 63, Subpart EEE.

PTI #20067

This PTI was issued on July 11, 2006. An administrative modification to the PTI was issued on September 26, 2006, to add wording to the description of P004. PTI #02-20067 involved the change of T001, T002 and T003 to emissions units P003 (Tanker transfer station-Bay 2), P004 (Tanker transfer station-Bay 3) and P005 (Tanker transfer station-Bay 1).

PTI#02-22975

This PTI was issued on September 10, 2008, for emissions unit P006 (Slag Canopy Building). PTI #P0103856 is the administrative modification to this PTI issued on September 25, 2008. The modification corrected that vapors would be vented to both the carbon boxes and the incinerator. We understand P006 is not being operated as permitted in this PTI as the connection to the vapor recovery system has not yet been made. Section A.11.b) of PTI #P0103856 states "If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension." Therefore, this PTI will expire if the vapor recovery system is not connected to the Slag Canopy building by March 25, 2010.

PTI #17-104 is the original PTI for the facility, and is still valid for most of the "insignificant emissions units," e.g., the tanks in the tank farm. PTI #17-104 was first issued on February 2, 1983. Modifications to the PTI were issued on June 24, 1985, December 7, 1987, August 30, 1991 and May 4, 1992.

"Insignificant activities and emissions levels" are defined by OAC rule 3745-77-01(U) as "(1) All source categories excluded from the requirements to obtain installation permits or operating permits under section 3704.011 of the Revised Code or Chapter 3745-15, 3745-31, or 3745-35 of the Administrative Code; (2) All source categories specifically exempted

under 40 CFR Part 70; or (3) Any emission unit with uncontrolled potential emissions of five tons or less per year of any regulated air pollutant other than a hazardous air pollutant and not more than twenty per cent of an applicable major source threshold under the act."

PTI #02-16110

This PTI was issued on May 2, 2002, for emissions unit T038 (2,500 gallon pump out tank 3, or 1233).

PTI #17-1009

This PTI was issued on December 18, 1991, for emissions units B002 and B003 (the two fire pumps).

PTI #17-825

This PTI was issued on May 24, 1991, for two spray dryers. Only one was installed, and is included in the description of N001.

Changes and/or modification to the Title V permit and PTI 02-18743

On May 6, 2009 and several times afterwards, Mr. Waggle and I have discussed the need to modify the Title V Permit and the respective PTIs for the following reasons:

- WTI proposed "Condition 3" in its Comprehensive Performance Test (CPT) Plan. Condition 3 involves establishing a minimum kiln temperature of 1,400 degrees Fahrenheit before a high Btu liquid organic waste is fed to the kiln as a fuel to further raise the temperature. The Title V Permit and the PTI for N001 currently state "The permittee shall operate within all Operating Parameter Limits (OPLs) and operating requirements established during the most recent Comprehensive Performance Test (CPT) and reported in the subsequent Notice of Compliance (NOC). However, at no time, shall the minimum secondary combustion chamber temperature be established to be less than 1,600 degrees Fahrenheit." This restriction was included in the air permits because WTI received approval from the Ohio EPA, Division of Hazardous Waste Management, to receive and treat infectious waste mixed with hazardous waste. The temperature restriction in the air permits is cited under OAC rule 3745-31-05 as BAT and is based on the requirements found in the infectious waste incineration air rules. As the air permits read at this time, WTI would violate the Title V permit and PTI if Condition 3 is tested. At the time of this writing, we understand that Condition 3 will not be included in Revision 3 of the CPT Plan. Therefore, this modification is not necessary.
- USEPA sent WTI a letter dated September 4, 2003, that approved Revision 3 of the CPT Plan for the CPT conducted in 2003 and 2004. The September 4, 2003, letter

also approved WTI's requests for alternative monitoring requirements pertaining to the electrostatic precipitator (ESP) and to the control of combustion system leaks. U.S. EPA disapproved WTI's request for a compliance extension.

The September 4, 2003, letter also states "Von Roll must petition the permitting authority to have the make and model number of the AVC (automated voltage/current controller) a condition of the permit. In addition, certain user-changeable settings on the AVC may be required to become permit conditions, based on what is observed and recorded during the CPT." WTI did not submit this information with its applications for the PTI modification (#02-18743) and for the Title V renewal.

Please submit an application for an administrative modification to PTI #02-18743 via E-Business: Air Services. The modification should request to add the make and model number of the AVC as a condition, and any other relevant information, to the terms and conditions of N001. Afterwards, an application to modify the Title V permit will need to be submitted.

- If WTI connects the vapor recovery system to P006 by March 25, 2010, an application must be submitted to include P006 as a non-insignificant emissions unit in the current Title V permit. This change would be a major modification.
- The Title V permit identifies the PTI number for T038 as 17-104. The correct PTI number is 02-16110. WTI needs to submit an application via E-Business:Air Services to request this administrative modification.

B. Malfunctions and determinations of MACT compliance:

The MACT, or Maximum Achievable Control Technology, requirements for hazardous waste incinerators are contained in 40 CRR 63, Subpart EEE.

40 CFR 63.1206(b)(1) states "The emission standards and operating requirements set forth in this subpart apply at all times except: (i) during periods of startup, shutdown, and malfunction; and (ii) when hazardous waste is not in the combustion chamber and there is documentation in the operating record of compliance with otherwise applicable requirements and standards promulgated under authority of sections 112 of 129 of the Clean Air Act..." In other words for this discussion, there is no violation of MACT when an Operating Parameter Limit (OPL) such as minimum kiln temperature or minimum SCC temperature is not met or when total hydrocarbons (THC) are exceeded if the deviation occurred during a startup, shutdown or malfunction (SSM).

WTI submits quarterly Excess Emissions Reports (EER) that identify the times of excess emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x), and total hydrocarbons (THC). This report also identifies the times when the required minimum kiln and SCC temperatures were not met. For each listed deviation, there is an explanation as to why it occurred. For the MACT related parameters (THC, minimum kiln temperature, minimum SCC temperature), if the explanation is a SSM, then it is not considered a MACT violation. The SO_2 and NO_x limits are established as BAT in the PTI and Title V, and therefore continuous compliance is required.

On several occasions, and on May 6, 2009, Mr. Waggle and I have discussed how WTI defines a malfunction. Common malfunction descriptions in WTI's EERs have been "Waste Feed Anomalies, Improper Customer Packaging, Lance Plugging or Purging, Lance Slagging, and Clinkers." We have questioned whether these events truly qualify as a malfunction. On May 6, 2009, Mr. Waggle further explained some of the more common malfunctions. Revision 8 of WTI's SSM Plan, created afterwards on June 12, 2009, also provides more detailed descriptions of the most common malfunction events that occur at the facility. We can follow the logic provided in the descriptions of each common malfunction. However, 40 CFR 63.2 defines a malfunction as "any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions."

We still question if ALL malfunctions for the specific deviations identified in the past EERs meet the definition on 40 CFR 63.2. The definition includes the adjective "infrequent." It also states that failures caused in part by poor maintenance are not malfunctions. As previously said, we follow the logic provided in your revised SSM Plan in the descriptions of common malfunctions. However, if it's common, how does it qualify as infrequent? Can WTI perform more frequent maintenance to prevent or minimize the lance plugging and/or purging, and other "common" malfunctions?

Therefore, we request an expanded explanation for each identified malfunction listed in future EERs. For example, if the reason for a THC exceedence is "Lance Plugging," the EER should provide a narrative as to the specific lance plugging incident that led to the THC exceedence. The narrative should clearly explain how the lance plugging at that time of the exceedence meets the full definition of malfunction in 40 CFR 63.2.

C. Recent Projects at WTI:

On May 6, 2009, we discussed recent projects at WTI. In November 2007, WTI studied the effects from the installation of four ambient air nozzles in the SCC. In October 2008, WTI performed testing to determine if lime addition to the spray dryer would be favorable to operations. We understand WTI does not wish to pursue any permanent modifications to its current operations according to these studies. More recently, this past summer 2009, WTI replaced the stack and kiln shell. The replacements were viewed as like-kind replacements, not needing a permit modification.

D. CPT:

The next CPT is planned for April 2010. The CPT Plan has not yet been approved. A letter dated November 3, 2009, contains U.S. EPA's and Ohio EPA's comments on Revision 2 of the CPT Plan. On December 1, 2009, representatives of WTI, AECOM, U.S. EPA and Ohio EPA took part in a teleconference to discuss the comments in the November 3, 2009, letter. On December 18, 2009, another teleconference was held. After the teleconference that morning, we e-mailed our draft proposal for mercury spiking to Mr. Waggle. At this time, we anticipate another teleconference in early January to reach an agreement on how WTI will achieve a steady state before mercury is tested during the CPT.

E. Reports:

- Leak Detection and Repair Report. The monitoring results of the fugitive emission testing at various pumps, valves and flanges and of the repairs, if needed, are reported monthly. We do not have any comments on these reports at this time.
- 2. <u>Benzene NESHAP Reports.</u> WTI submits annual and quarterly benzene NESHAP reports. The annual report includes the information requested in 40 CFR 61.357(a), which is the total annual benzene quantity from the facility waste as determined by 40 CFR 61.355(a), and a table indentifying each waste stream and whether or not the waste stream will be controlled for benzene emissions. The quarterly report includes the information requested in 40 CFR 61.357(d)(6), which is a certification that all required inspections have been carried out in accordance with the requirements of 40 CFR 61, Subpart FF.

Please include more detail in future quarterly reports. This detail should list those inspections and the findings from each inspection.

3. Quarterly & Semiannual Title V and PTI Reports

Quarterly and semiannual reports have been submitted as required by the PTIs and Title V permits. We do not have any comments on these reports at this time.

4. <u>Title V Compliance Certification Reports</u>

These reports have been submitted annually, and report on the compliance of each term and condition for each non-insignificant emissions unit in the Title V permit, which are B006 (gas fired auxiliary boiler), F001 (paved and unpaved roadways and parking areas), F002 (loose solid waste receiving and handling operations, or pits #1 and #2), F004 (pneumatic lime and activated charcoal handling system), N001 (hazardous waste incinerator), P001 (container processing), P003, P004, and P005 (tanker transfer stations, bays 2, 3 and 1).

As of 2006, there is an abbreviated format for this report. An "Identification of Intermittent Compliance (IC)" is required. When comparing what has been reported in the quarterly reports for 2008, it appears some information is missing from the 2008 Title V Compliance Certification Report. For example, the IC for the 2008 report does not include the deviation that occurred on 6/5/08 for P001. A quarterly report for P001 identifies a time on 6/5/08 when the pressure within the vapor recovery system upstream of the ventilation header exceeded atmospheric pressure for less than one minute. This information is not included as an IC for P001 in the Title V Compliance Certification Report for 2008.

Please re-submit a complete Title V Compliance Certification Report for 2008. We recommend that the table be in the format as a pdf file that is attached to the electronic report in E-Business: Air Services. The pdf file should eliminate the concern written in your statement under F002 that the "Program will not allow multiple dates to be entered."

5. Fee Emissions Report

This report has been submitted annually and reports calculated, actual emissions for each calendar year. We discussed the calculation for B006. Only filterable particulates are billable. Therefore, you may use the emission factor (EF) of 1.9 lbs PE/mmft³ to calculate the filterable particulates from this unit. You also need to report the calculated condensable particulate portion, by using an EF of 5.7 lbs PE/mmft³. In your 2008 report, you used an EF of 7.6 lbs PE/mmft³ which calculates total particulates. This was acceptable. However, you may report the filterable and condensibles separately in future reports.

6. MACT Exceedence Reports

40 CFR 63.1206(c)(3)(vi) requires a report to be submitted for each set of 10 exceedences of an emission standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period. This report must be submitted within 5 calendar days of the 10th exceedence. As of the date of this letter, the last report was submitted on July 21, 2009.

7. Excess Emissions Reports (EERs)

These quarterly reports include the following: Continuous Emissions Monitor (CEM) readings above the limits of 11.34 lbs SO₂/hr, 28.36 lbs NO_x/hr, and 10 ppmv Total Hydrocarbons (THC) as a hourly rolling average; Continuous Opacity Monitor (COM) readings above 20% opacity; Continuous Monitor System (CMS) readings for kiln temperatures and Secondary Combustion Chamber (SCC) temperatures below 1760 degrees Fahrenheit and 1795 degrees Fahrenheit, respectively.

Each reading above or below the respective emissions limit or temperature is recorded in these reports. Also recorded is information on whether the event occurred during a startup, shutdown or malfunction or during normal operations when hazardous waste was in the incinerator.

As previously discussed in the above paragraph on malfunctions, we request an expanded explanation for each identified malfunction listed in future EERs. The description should clearly explain how the specific malfunction meets the full definition provided in 40 CFR 63.2.

8. <u>Semiannual Startup, Shutdown & Malfunction Report, Semi-Annual Excess</u> <u>Emissions Report, and CMS Report</u>

These reports have been submitted semiannually and identify the excess emissions during the reporting period. We have no comments on these reports at this time.

9. Data Assessment Reports (DAR)

The Continuous Emissions Monitors (CEM), Continuous Opacity Monitor (COM) and Continuous Monitoring System (CMS) are tested periodically for quality assurance. Relative Accuracy Test Audits (RATA) are required to be performed once every four quarters. Cylinder Gas Audits (CGA) are required to be performed in three of four quarters. Relative Accuracy Audits (RAA) are required to be performed in three of four quarters. We have no comments on these reports at this time.

10. Procedure T for F002

As required by the Title V permit and PTI 02-18743, a Procedure T test is required every year for emissions unit F002. This test is to verify that the building containing pits #1 and #2 is functioning as a total permanent enclosure. The reports from these annual tests have been submitted to this office. We have no comments on these reports at this time.

F. <u>Violations at WTI</u>:

- 1. USEPA: On March 31, 2005, a Consent Agreement and Final Order was issued for WTI failing parts of the CPT in 2003.
- 2. OEPA/DAPC issued a Notice of Violation (NOV) on October 11, 2005. USEPA issued an NOV on May 7, 2007. The violation pertained to an exceedence of the maximum mercury feed OPL in August 2005. Von Roll (now WTI) responded to OEPA's NOV in a letter dated October 20, 2005. OEPA was satisfied with the response.
- 3. USEPA: A Consent Decree was filed in December 2006 for violations of the benzene NESHAP.
- 4. OEPA/DAPC issued an NOV on July 14, 2006, for not controlling vapors from F002 as required by the Title V permit and PTIs due to an explosion. Von Roll (now WTI) responded to OEPA in a letter dated July 28, 2006. OEPA was satisfied with the response.
- 5. OEPA/DAPC issued an NOV on December 17, 2007, for not controlling vapors from F002, P001, P003, P004, P005 and tank farm as required by the Title V permit and PTIs due to an explosion on June 19, 2007. Von Roll-(now-WTI) responded to OEPA in a letter dated January 11, 2008. In WTI's response was an agreement that emissions from the bulk solid waste pits (F002) and ST-10 were not controlled. However, WTI disagreed that emissions were not controlled from the tanker transfer stations (P003, P004 & P005), container processing (P001), and other insignificant units within the organic tank farm. WTI wrote, "At the onset of the June 19th incident, VRA immediately ceased all waste processing functions at the facility. Tanker transfer operations were halted thus eliminating any vapors from the tanker transfer stations. Container processing operations were also stopped and all containers were sealed to remove the possibility of emissions from this area. In addition, tank-to-tank transfers within the organic tank farm were also shut down to prevent additional emissions to that of the ST-10 reaction." We accept this explanation. WTI further responded that OEPA's inclusion that "Von Roll/WTI failed"

to prevent physical damage to the system (vapor recovery), in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous material" as a violation is not entirely correct. OEPA maintains that the inclusion was correct. OEPA was also satisfied with the other responses in the January 11, 2008, letter.

- 6. OEPA/DAPC issued an NOV on June 16, 2009, for violating the terms of the PTI and Title V permit and sections of federal regulations during times when feed waste measurements from F002 were estimated instead of using an intact, operational CMS. WTI responded to our NOV in a letter dated July 16, 2009. In this response was a request for an Alternative Monitoring Procedure for when the CMS is inoperable and repairs cannot be made immediately. As stated in our letter dated August 26, 2009, only USEPA can approve of any alternative monitoring procedure. Until USEPA takes action on the proposal, WTI must cease waste feeds via the Kiln Bulk Feed Crane during periods when the load cells are not functioning or other parts of the CMS are out of order.
- 7. OEPA/DAPC issued an NOV on November 16, 2009, for an SO₂ exceedence during the July-September 2009 quarter. The third quarter EER reported that the SO₂ emissions exceeded the limit of the 11.34 lbs SO₂/hr for 7,482 minutes during the quarter. This amount of time is 5.72% of the time during the quarter when the SO₂ monitor was working while the incinerator was in operation. WTI responded in a letter dated December 1, 2009. OEPA is satisfied with the response.
- 8. The EER for the fourth quarter 2008 reported that NO_x emissions exceeded the limit of 28.36 lbs/hour for 5,483 minutes during the quarter. This amount of time is 5.27% of the time during the quarter when the NO_x monitor was working while the incinerator was in operation. WTI therefore violated Section C.5.b)(1)a. of the Title V permit and Part III.A.I.1 of PTI #02-18743 for N001 (Hazardous Waste Incinerator) which both state "Nitrogen oxides emissions from the stack shall not exceed 28.36 pounds per hour and 124.23 tons per year." Any violation of a term and condition of any permit issued by Ohio EPA is also a violation of Ohio Revised Code (ORC) 3704.05(C).

Please respond as to what WTI has done to reduce NO_x emissions.

G. Overall compliance determination:

EERs

Current Ohio EPA policy is that emission exceedences over 5% during any quarter will trigger enforcement action. Monitor downtime of over 5% during any quarter will also

trigger enforcement. However, this policy may change in the future. We therefore, highly recommend that WTI enhance its operations to the best of its ability to minimize exceedences of emissions limits and deviations of any OPL.

Overall compliance determination

Ohio EPA finds WTI to be in intermittent compliance with its Title V permit and PTIs.

If you have any questions or comments, please contact me at (330) 963-1237, or at pam.korenewych@epa.state.oh.us.

Sincerely,

Pamela L. Korenewych Environmental Specialist

Division of Air Pollution Control

PLK:bo

ec: Ed Fasko, DAPC, NEDO

Natalie Oryshkewych, DHWM, NEDO

Frank Popotnik, DHWM, NEDO

Patricia Natali DHWM, East Liverpool Field Office Michelle Tarka, DHWM, East Liverpool Field Office

Jed Thorp, PIC

pc: Vince Waggle, Heritage-WTI